

**Abstract 291**

**TITLE:** Neuropsychological and Self-Report Measures of Impulsivity: Relationship to Promiscuity and Condom Usage in College Students

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**OBJECTIVES:** Impulsivity is a broad psychological construct which is difficult to quantify. Its relationship to promiscuous or risky sexual behavior (RSB) is expected to be high. For example, individuals who endorse traits of impulsivity or related behaviors (e.g., sensation-seeking) on self-report measures engage in more RSB. However, self-report measures of impulsivity do not correlate highly, if at all, with neuropsychological measures related to impulsivity, and the relationship between neuropsychological variables and sexual risk-taking is largely uncharacterized. This study attempts to measure impulsive responding in college students based on a brief neuropsychological battery and to describe the relationship of the battery to RSB.

**METHODS:** Self-report (e.g., the EASI-III Impulsivity Scale, State-Trait Anxiety Inventories), behavioral, (e.g., sexual promiscuity, frequency of condom usage), and neuropsychological measures (e.g., the Stroop Color-Word Test, Trail making Tests, Porteus Maze Test, Tower of London) were administered to 248 undergraduate students at the University of Cincinnati. RSB was quantified by a weighted sum of the frequency of sexual contacts and the percentage of condom usage. Multivariate analyses were used to explore the relationship between neuropsychological performance and sexual promiscuity and condom use.

**RESULTS:** Age and gender of subjects significantly contributed to the neuropsychological test results ( $p < .01$ ). After accounting for the effects of age, women endorsed more disinhibition and more anxiety. RSB was not significantly related to primary outcome measures on neuropsychological tasks, but was significantly related to how each subject paced the speed of their responses across various tasks. The relationship between hasty responding and RSB was significantly stronger for men.

**CONCLUSIONS:** Primary neuropsychological measures do not correlate well with RSB in neurologically intact subjects. However, a trait for impulsivity is evident in the response style a subject exhibits (e.g., hasty responding) while taking neuropsychological tests. A hasty, impulsive response style may be a contributing factor to RSB in undergraduate college students. Efforts to quantify hasty responses to neuropsychological test items may help to identify persons at risk for increased RSB.

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